Architecture
Image Studies

Vol.7, Issue 1, pp.2249-2260, 2026
DOI: https://doi.org/10.62754/ais.v7i1.1205

https://journals.ap2.pt/index.php/ais/index

The Role of Resilience in School Climate, Adaptability, and Self-Efficacy to Academic Performance: Evidence from a Maritime Polytechnic in Indonesia

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Abstract

This study investigates the influence of school climate, student adaptability, and self-efficacy on academic performance, with student resilience serving as a mediating variable. Employing a quantitative explanatory design, the research was conducted at Politeknik Pelayaran Barombong, a leading maritime polytechnic in Eastern Indonesia. The entire population of 586 cadets across three academic programs participated through a census sampling technique. Data were collected via a Likert-scale questionnaire and analyzed using Variance-Based Structural Equation Modeling (VB-SEM) with SmartPLS software. The results demonstrate that a positive school climate, high adaptability, and strong self-efficacy significantly enhance both resilience and academic performance. Furthermore, resilience mediates the effects of these predictors on performance, acting as a psychological buffer that enables students to overcome challenges. The findings underscore the importance of fostering a supportive academic environment, promoting adaptive skills, and strengthening self-efficacy to improve student outcomes. Practical implications include targeted teacher training, comprehensive student support programs, and initiatives aimed at building confidence and resilience among learners.

Keywords: *School Climate, Student Adaptability, Self-Efficacy, Student Resilience, Academic Performance, Maritime Education.*

Introduction

Student performance is one of the key indicators for evaluating the quality of education and students' ability to absorb and apply the knowledge acquired throughout the learning process. Research focusing on student performance in vocational schools remains limited, particularly in the specific context of maritime vocational education (Ghosh et al., 2017). In maritime vocational schools, student performance reflects not only theoretical understanding but also practical skills aligned with the demands of the maritime industry and workforce (Türkistanli, 2024). Vocational education plays a strategic role in preparing skilled labor for the job market; thus, student performance is considered a crucial aspect. Strong student performance in vocational education can enhance graduates' employment prospects and meet market demands for competent labor (Griffioen et al., 2021).

Student performance is regarded as a primary factor that reflects the quality of vocational school graduates (Zynuddin et al., 2023). Graduates who demonstrate excellent student performance during their education tend to possess a solid understanding of subject matter and practical skills. Moreover, student performance indicates graduates' readiness to face workplace challenges, adapt to changes, and engage with technological advancements to meet industrial needs (Yang, 2023). Student resilience is considered to play a significant role in influencing student performance in maritime vocational education, as it reflects students' ability to endure various challenges and pressures within the school environment (Geremias et al., 2022). Maritime vocational schools, in particular, require not only academic intelligence but also physical endurance. Students with high resilience remain focused and motivated in their studies despite encountering obstacles such as personal or academic difficulties.

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Resilience enables students to persevere and persist, which is associated with improved academic performance (Etherton et al., 2022).

Previous research has seldom linked student performance to external factors. School climate is recognized as an external factor that may influence student performance (F. Wang et al., 2024). School climate encompasses various elements, such as student-teacher relationships, feelings of safety and comfort within the school environment, and the prevailing culture and values upheld by the institution. However, the specific role of school climate in shaping a conducive atmosphere for teaching and learning remains underexplored. In addition to external factors, internal factors such as student adaptability are also associated with student performance (Amsalu & Belay, 2024). High adaptability enables students to respond effectively to changes and challenges, allowing them to engage with learning more efficiently.

A major gap in the existing literature is the lack of an integrated framework that combines both internal and external constructs to comprehensively understand the determinants of student performance. Previous studies tend to adopt a fragmented approach, limiting their usefulness as references for educators and policymakers aiming to design comprehensive and effective educational programs (Saputra et al., 2020). Although numerous studies have examined individual factors influencing student performance, such as self-efficacy, resilience, and school climate, few have integrated both external and internal dimensions. This study aims to investigate the internal and external constructs that shape student performance. Understanding the interplay between these dimensions offers a more comprehensive perspective on the determinants of academic outcomes.

Literature Review

School Climate

Rutter's theory of resilience, a positive school climate, which includes social support, safety, positive norms, and healthy interpersonal interactions within the school environment, is believed to enhance students' resilience (Zynuddin et al., 2023). A supportive school environment that promotes student well-being provides a strong foundation for developing resilience in the face of academic and non-academic challenges (Graham, 2022). A school climate that promotes positive norms, such as cooperation, recognition of achievement, and tolerance for diversity, is considered to facilitate the development of character traits and attitudes that support resilience (Franco et al., 2023). These values are often internalized by students through their interactions with the school environment, shaping how challenges and obstacles are addressed. Both the physical and psychological aspects of school climate are recognized as playing important roles in fostering student resilience (Yu & Jiang, 2022).

A positive school climate also contributes to improved psychological well-being. Students who perceive strong support within the school environment tend to experience lower levels of stress and higher levels of well-being, both of which positively influence student performance (Ryberg et al., 2020). Furthermore, a school climate that fosters intrinsic motivation and encourages student engagement in school activities is believed to enhance participation in the learning process. Engaged students tend to approach academic tasks with greater enthusiasm and seek out opportunities for growth and development (Monsillion et al., 2023). A school environment that promotes a positive and inclusive learning culture can motivate students to achieve better academic outcomes (Long et al., 2021). When students feel safe within the school, they are more likely to remain focused on academic tasks and are less likely to be distracted by external issues.

A supportive school climate establishes a safe, inclusive atmosphere that encourages student development (Fabbri et al., 2022). Teacher support, positive peer relationships, and fair and consistent school policies all contribute to strengthening student resilience. When students feel valued and supported, the capacity to manage stress and overcome challenges increases, thereby enhancing the ability to recover from failures or difficulties (Klik et al., 2023). Resilient students possess the ability to cope with and recover from various academic pressures and setbacks. Resilience enables students to remain focused, motivated, and persistent in achieving academic goals despite encountering difficulties. Such students are often better equipped to manage stress, solve problems effectively, and maintain emotional well-being factors that collectively contribute to improved academic achievement (Dreer, 2022).

H1: School climate has a significant effect on student resilience.

H2: School climate has a significant effect on student performance.

H3: School climate has a significant effect on student performance through the mediation of student resilience.

Student Adaptability

Student adaptability refers to the ability of students to adjust to changes in learning environments, manage new challenges, and modify their learning strategies as needed. Adaptive students are generally more capable of coping with curriculum changes, diverse teaching methods, and new academic demands (Anwar et al., 2022). This capability enables students to remain effective when facing learning-related challenges and is considered a key element in the development of resilience. Adaptability plays a crucial role in fostering student resilience. Adaptive students are more likely to perceive change and obstacles as opportunities for growth and learning, rather than as insurmountable barriers (Kar et al., 2024). This perspective supports the development of social, emotional, and cognitive skills necessary for dealing with stress, frustration, or failure during the learning process. Resilience allows students to remain motivated and engaged in their learning, even when encountering significant challenges.

A supportive school environment that encourages student adaptability can enhance the development of resilience (Mardiyati & Yuniawati, 2021). Flexible facilities, support from teachers and school staff, and a focus on developing adaptive skills contribute to holistic student growth. The capacity for student adaptability enables learners to adjust their learning strategies in accordance with new needs and circumstances. Adaptive students are more open to varied and novel forms of learning and are able to modify their learning styles to achieve desired outcomes. This flexibility can improve both learning efficiency and the quality of academic achievement. Student adaptability fosters the development of strong resilience. Adaptability serves as a foundational component in building the mental and emotional attitudes required for consistent academic success (Wahidah & Masrukan, 2021). Adaptive students often exhibit higher levels of intrinsic motivation for learning. Challenges are viewed not as impediments but as opportunities for personal and academic growth. This motivation positively influences student performance, as students are more driven to achieve their educational goals (Matos & De Andrade, 2023).

Student adaptability, defined as the capacity to adjust to change and new challenges, plays a pivotal role in influencing academic performance through the enhancement of resilience. Students with high adaptability tend to be more flexible when facing novel situations such as curriculum shifts, changes in teaching methods, or variations in the learning environment (Satyaninrum, 2019). This adaptability strengthens their resilience by equipping them with the ability to manage stress, identify solutions to problems, and maintain motivation despite adversity (Latif & Amirullah, 2020). High levels of resilience enable students to recover from setbacks and maintain focus on their academic goals, ultimately contributing to improved academic performance. In other words, student adaptability reinforces resilience, which in turn supports optimal academic outcomes.

H4: Student adaptability has a significant effect on student resilience.

H5: Student adaptability has a significant effect on student performance.

H6: Student adaptability has a significant effect on student performance through the mediation of student resilience.

Student Self Efficacy

Self-efficacy can be regarded as one of the key factors influencing student resilience. Students with high levels of self-efficacy tend to exhibit greater confidence in facing challenges and are more capable of managing stress. This belief in one's ability provides a strong foundation for the development of resilience, as students perceive themselves as capable of overcoming obstacles and difficulties (Malinen & Savolainen, 2016) High self-efficacy strengthens students' confidence when encountering academic challenges. With a strong sense of self-belief, students are more likely to take the necessary risks associated with learning and personal growth, and are less likely to give up when facing failure. Students with high self-efficacy are also more likely to employ effective coping strategies (Ghosh et al., 2020). These students are better equipped to formulate concrete and realistic action plans when facing problems, ultimately enhancing their resilience.

A high level of self-efficacy increases intrinsic motivation to achieve academic goals. Motivated and persistent students are better able to endure difficulties, demonstrating greater resilience. Self-efficacy also contributes to lower levels of anxiety and stress, while increasing positive emotions

(Duchatelet & Donche, 2019). Students who experience less stress and more positive affect are generally more capable of recovering from setbacks. There is a strong positive correlation between self-efficacy and academic performance. Students with higher self-efficacy tend to demonstrate better academic performance compared to those with lower self-efficacy. This relationship is attributed to self-efficacy's influence on several aspects of the learning process, including motivation, perseverance, and the application of effective learning strategies. Students who believe in their own abilities are better able to manage academic stress and pressure (Oh et al., 2020). These students typically approach exams and assignments with greater composure, resulting in improved academic outcomes. Students with high self-efficacy tend to set more ambitious goals and invest greater effort in achieving them. Rather than giving up when faced with challenges, these students continue seeking solutions to overcome barriers.

Previous research has established that self-efficacy is a strong predictor of academic performance. Zulfikar et al., (2020) asserted that individuals with high self-efficacy are more likely to succeed because of their confidence in completing tasks and addressing challenges. Empirical studies, Wang & Zhu (2019) also confirmed a positive relationship between self-efficacy and academic achievement across different educational levels and fields of study. Student self-efficacy, defined as the belief in one's ability to succeed in academic tasks, significantly influences academic performance through the enhancement of resilience. Students with high self-efficacy are more confident in facing academic challenges, which strengthens their resilience by enabling them to remain calm and persistent in the face of adversity or failure (Fabbri et al., 2022).

H7: Student self-efficacy has a significant effect on student resilience.

H8: Student self-efficacy has a significant effect on student performance.

H9: Student self-efficacy has a significant effect on student performance through student resilience.

Student Resilience

Students with high levels of resilience tend to possess strong mental fortitude, which enables them to recover from failures or difficulties. This mental strength allows them to persist in the face of adversity and reduces the likelihood of giving up easily. Resilience enhances students' intrinsic motivation to achieve academic goals (Geremias et al., 2022). Resilient students demonstrate greater perseverance in their learning and are less likely to be discouraged by temporary failures or challenging circumstances. Resilience also contributes to improved emotional well-being, which positively impacts students' capacity to learn and achieve. Students who experience more positive emotions and lower levels of anxiety are generally better able to concentrate on academic tasks and attain favorable outcomes. Previous research, such as the study by Munawaroh et al., (2020), has identified resilience as a critical factor influencing academic performance. Empirical studies have consistently shown that students with high levels of resilience tend to achieve better academic outcomes compared to those with lower levels of resilience. Resilience enables students to overcome various challenges and obstacles throughout the learning process, thereby allowing them to reach optimal academic achievement.

H10: Student resilience has a significant effect on student performance.

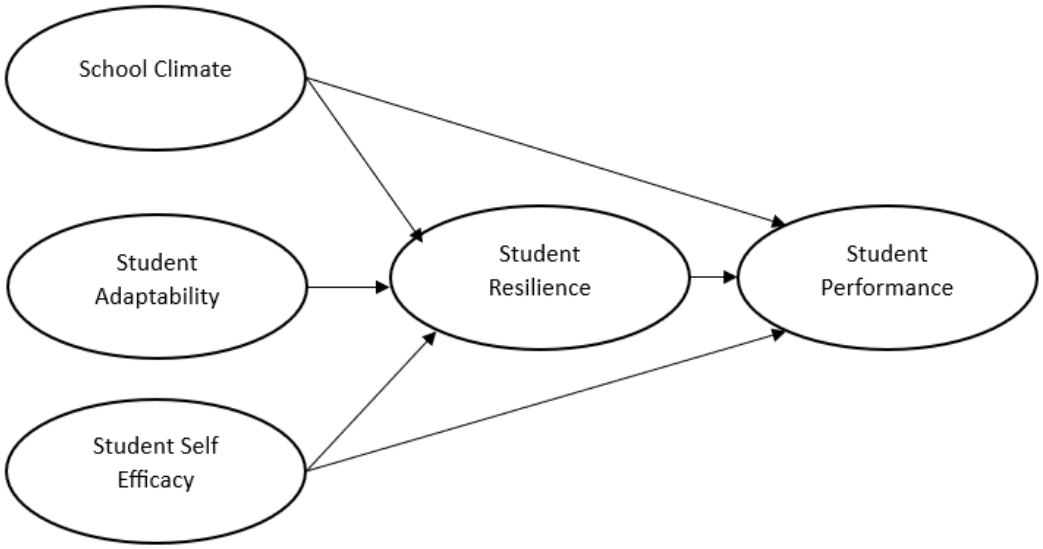

Figure 1. Research Framework

Method

Research Approach

This study employs a quantitative research approach, which was selected for its capacity to numerically measure the investigated variables and to statistically analyze the relationships (Ingleby, 2012). Quantitative research emphasizes the numerical measurement of phenomena and the use of statistical techniques to analyze the relationships between variables . This study aims to examine the influence of school climate, student adaptation, and self-efficacy on student performance, with student resilience serving as a mediating variable. The research adopts an explanatory design, which is intended to test causal relationships between independent and dependent variables through the inclusion of a mediator. The research was conducted within the context of student performance at Politeknik Pelayaran Barombong, selected as the study site due to its conducive academic environment and its status as one of the leading maritime polytechnic institutions in Eastern Indonesia.

Population and Sample

The population of this study consists of cadets (students) enrolled at Politeknik Pelayaran Barombong. This population includes students from all levels and academic programs offered by the institution. Given the specific academic and social environment of this maritime polytechnic, this population is considered appropriate for investigating how school climate, student adaptation, and self-efficacy influence academic performance through student resilience. According to data from the Higher Education Database (Pangkalan Data Pendidikan Tinggi – PD Dikti), the total number of cadets in 2023 was 586, comprising 96 students in Marine Transportation Management, 250 in Nautical Studies, and 240 in Marine Engineering. The sample refers to a subset of the population selected to participate in the study. Sampling is used when it is impractical or impossible to study an entire population. By analyzing a representative sample, researchers can draw conclusions that are generalizable to the population. In this study, the entire population of 586 cadets was used as the sample, employing a census sampling technique. Data collection was conducted using a questionnaire, which was distributed to the cadets of Politeknik Pelayaran Barombong. The questionnaire employed a Likert scale to capture the responses.

Data Analysis

The data were analyzed using Variance-Based Structural Equation Modeling (VB-SEM). VB-SEM integrates Bayesian inference with structural equation modeling, offering a modern approach for estimating complex SEM models (Byrne, 2020). This method uses variational inference to estimate the posterior distribution of parameters by approximating the true, often intractable, posterior with a simpler, more tractable variational distribution. VB-SEM is particularly effective in handling complex models involving numerous latent variables, formative constructs, and intricate structural relationships. For the analysis in this study, the software SmartPLS was employed.

Results and Discussion

Outer Model Evaluation

The outer model represents the part of the structural equation model that illustrates the relationships between latent variables (constructs) and associated manifest variables (indicators). It is used to assess the validity and reliability of the construct measurements.

Validity Testing Results

The purpose of validity testing is to ensure that the instrument or measurement tool employed in the study accurately measures the intended constructs. Validity is a crucial component in determining the reliability and credibility of research findings. The results of the validity test are presented in Table 1

Table 1. Outer Loading Result

Indicator	Variable				
	School climate	Student Adaptability	Student Performance	Student Resilience	Student Self Efficacy
KA1			0.863		
KA2			0.838		
KA3			0.881		
KA4			0.895		
KA5			0.898		
SA1		0.935			
SA2		0.930			
SA3		0.941			
SA4		0.932			
SA5		0.946			
SC1	0.905				
SC2	0.924				
SC3	0.931				
SC4	0.912				
SC5	0.936				
SE1					0.941
SE2					0.937
SE3					0.935
SE4					0.940
SE5					0.944
SR1				0.924	
SR2				0.927	
SR3				0.939	
SR4				0.894	

Based on the results presented in Table 4.1, all research indicators met the validity criteria, as indicated by loading factor values of ≥ 0.7. In addition, Figure 4.1 illustrates that the loading factors have met the established criterion (≥ 0.7).

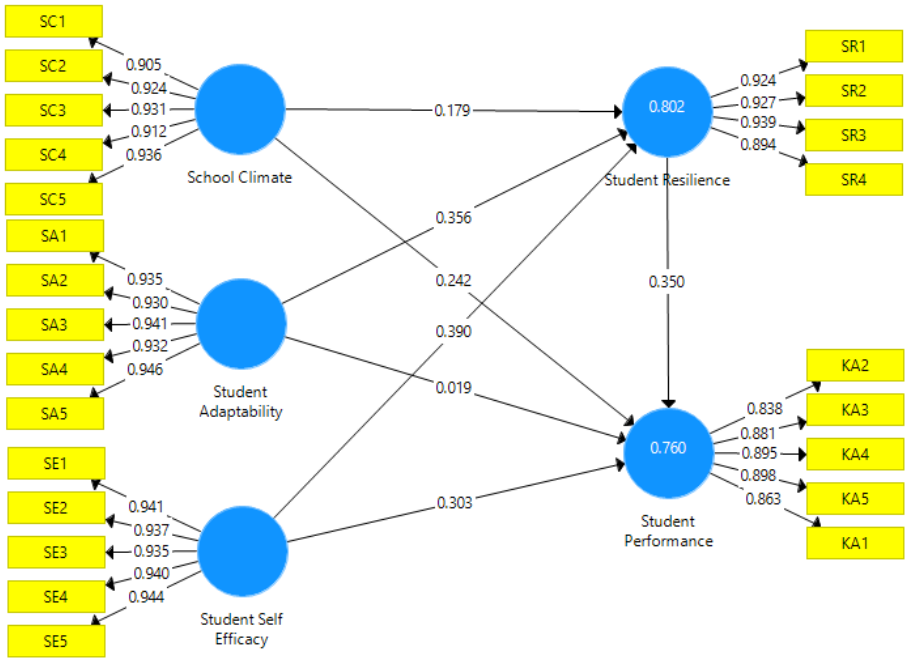

Figure 2. Loading Factor Result

Furthermore, there is a discriminant validity test, as shown in Table 2

Table 2. Discriminant Validity Test Result

Variabel	*School climate*	Student Adaptability	Student Performance	Student Resilience	Student Self Efficacy
School climate	0.922				
Student Adaptability	0.905	0.937			
Student Performance	0.823	0.818	0.875		
Student Resilience	0.846	0.873	0.835	0.921	
Student Self Efficacy	0.886	0.91	0.839	0.872	0.94

The test results in Table 2 compare the Average Variance Extracted (AVE) value of each construct with the correlations among constructs. As shown in Table 2, discriminant validity is achieved when the AVE of each construct is greater than the squared correlation between that construct and other constructs.

Reliability Test Result

Reliability testing aims to ensure the consistency and stability of the measurement tool or research instrument. The researcher tested reliability using Cronbach's Alpha, Composite Reliability (CR), and Dijkstra-Henseler's rho_A. The reliability test results are shown in Table 3.

Table 3. Reliability Test Result

Variable	Cronbach's Alpha	rho_A	Composite Reliability
School climate	0.956	0.956	0.966
Student Adaptability	0.965	0.965	0.973
Student Performance	0.923	0.926	0.942
Student Resilience	0.94	0.941	0.957
Student Self Efficacy	0.967	0.967	0.974

Based on Table 3, it can be interpreted that a high Cronbach's Alpha value indicates that the indicators of a construct have good internal consistency. The test results show a Cronbach's Alpha value ≥ 0.7. In addition, Dijkstra-Henseler's (rho_A) is a more recent and considered more accurate measure of reliability compared to Cronbach's Alpha and Composite Reliability. The rho_A value accounts for the shared variance of the indicators measuring the latent construct. The test results show a rho_A value ≥ 0.7. Composite Reliability (CR) measures internal consistency reliability in a similar way to Cronbach's Alpha but assigns more appropriate weights to indicators based on their loadings on the construct. A CR value above 0.7 is considered adequate, as shown in Table 3.

Coefficient of Determination

The R^2 value and adjusted R-squared in Partial Least Squares Structural Equation Modeling (PLS-SEM) are measures that indicate how well the independent variables in the model explain the variance of the dependent variable. R^2 indicates the predictive power of the model. The R^2 value ranges from 0 to 1, where a higher value indicates a better model in explaining the variance of the dependent variable. The R^2 test results are shown in Table 4.

Table 4. Coefficient of Determination Test Results

Variable	R Square	R Square Adjusted
Student Performance	0.76	0.759
Student Resilience	0.802	0.802

In Table 4, the R^2 and adjusted R-squared values range from 0.760 to 0.802, indicating that the model's predictive power falls into the high category, meaning the independent variables in the model are able to explain the variance of the dependent variable.

Hypothesis Testing

The testing in this study involves both direct and indirect effects, with the direct effects shown in Table 5 and the indirect effects shown in Table 6.

Table 5. Direct Effect Result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
School climate → Student Performance	0.242	0.245	0.067	3.581	0.000
School climate → Student Resilience	0,179	0.186	0.066	2.728	0.007
Student Adaptability → Student Performance	0.019	0.03	0.093	0.207	0.836
Student Adaptability → Student Resilience	0.356	0.355	0.083	4.31	0.000
Student Resilience → Student Performance	0.350	0.347	0.064	5.453	0.000
Student Self Efficacy → Student Performance	0.303	0.291	0.105	2.892	0.004
Student Self Efficacy → Student Resilience	0.390	0.384	0.084	4.644	0.000

Tabel 6. Indirect Effect Result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Student Self Efficacy → Student Resilience → Student Performance	0.136	0.134	0.043	3.184	0.002
Student Adaptability → Student Resilience → Student Performance	0.124	0.122	0.032	3.831	0.000
School climate → Student Resilience → Student Performance	0.063	0.065	0.027	2.329	0.020

The analysis reveals that school climate has a significant positive effect on student performance ($\beta = 3.581$, $p < 0.001$) and student resilience ($\beta = 2.728$, $p = 0.007$), whereas student adaptability does not have a direct impact on performance ($\beta = 0.207$, $p = 0.836$), but shows a significant effect on resilience ($\beta = 4.310$, $p = 0.000$). Student resilience, significantly influences student performance ($\beta = 5.453$, $p = 0.000$). Additionally, student self-efficacy significantly affects both performance ($\beta = 2.892$, $p = 0.004$) and resilience ($\beta = 4.644$, $p = 0.000$). The study also identifies significant mediating effects of student resilience in the relationships between self-efficacy and performance ($\beta = 3.184$, $p = 0.002$), adaptability and performance ($\beta = 3.831$, $p = 0.000$), and school climate and performance ($\beta = 2.329$, $p = 0.020$), indicating that student resilience plays a crucial role in enhancing academic achievement.

Discussion

1. The research results are consistent with existing literature and theories, offering robust evidence for the importance of psychosocial and environmental factors in educational outcomes. The study reveals that a positive school climate significantly enhances student resilience. A safe, inclusive, and supportive environment fosters a sense of belonging and attachment, which are key components in building resilience. Students who feel valued and accepted are better equipped to handle stress and challenges in a proactive manner. This supports findings by Zynuddin et al., (2023), who emphasized the importance of teacher and staff support in bolstering students' coping skills. Constructive feedback and encouragement from educators enhance students' confidence, promoting greater emotional stability and resilience (Graham, 2022). Moreover, the findings align with Rutter's resilience theory, which highlights the importance of support systems, particularly peer relationships, in promoting psychological strength. (Fair et al., 2018) emphasize that strong peer support networks are crucial in helping students navigate adversity. As supported by Amsalu & Belay (2024), a positive school climate can impact specific dimensions of student resilience through emotional, social, and academic support mechanisms.

2. The study confirms that a positive school climate contributes significantly to student performance. When students feel emotionally and physically secure, they are more engaged and focused on learning tasks, echoing Zynuddin et al., (2023). Teachers' emotional support and constructive feedback play an essential role in motivating students and enhancing their academic achievement (W. Zhang, 2022). Positive peer relationships further boost students' sense of belonging, increasing their motivation and engagement in learning, consistent with Anthony et al., (2020). Adequate physical infrastructure and resources also help cultivate an effective learning environment Long et al., (2021), supporting optimal academic performance.

3. The results show that student adaptability is a strong predictor of resilience. Students who can flexibly adjust to changes in academic environments are better able to cope with stress and uncertainties, a finding aligned with Daoud et al., (2024). Adaptive students develop constructive coping mechanisms and maintain a growth mindset when faced with challenges (Loan et al., 2024). As noted by Griffioen et al., (2021), adaptability fosters openness to new experiences, which is vital for building long-term resilience. Thus, promoting adaptability can serve as a strategic avenue for resilience development. Although the direct effect of adaptability on academic performance was not statistically significant in this study, its indirect effect via resilience was significant. Students with high adaptability are more likely to modify their learning strategies in response to new academic demands, helping them maintain focus and motivation despite challenges (K. Zhang et al., 2021). Adaptable students also demonstrate greater independence and proactivity, actively seeking resources and engaging in critical thinking and problem-solving, which are essential for academic success (Awee et al., 2022). These findings suggest that enhancing adaptability contributes to better academic outcomes, especially when mediated by resilience.

4. The study shows that student self-efficacy has a significant positive influence on resilience. Students with strong self-belief are more likely to persevere through academic and social challenges (Usán Supervía et al., 2022). They view failures as opportunities to grow, which strengthens their intrinsic motivation and fosters adaptive coping strategies. Self-efficacy enables students to seek help when needed and utilize problem-solving approaches, supporting emotional well-being and resilience (Usán Supervía & Quílez Robres, 2021).

Therefore, self-efficacy provides a critical psychological foundation for building resilience in students.

5. Self-efficacy also significantly impacts student performance. Confident students are more focused, motivated, and persistent in their learning efforts (Zulfikar et al., 2020). They manage their study time well, engage deeply with academic content, and take responsibility for their learning outcomes. These behaviors are linked to higher academic achievement and consistent performance (Thanoi et al., 2023). Moreover, self-efficacy supports intrinsic motivation, which drives students to pursue challenges and continuously improve their academic capabilities. Strengthening self-efficacy can thus be a powerful strategy to enhance both performance and psychological well-being.
6. Student resilience itself plays a vital role in academic success. Resilient students demonstrate higher persistence and are less likely to be discouraged by academic failures, viewing them as learning opportunities (Griffioen et al., 2021). They remain committed to their goals and are more willing to take academic risks (Latif & Amirullah, 2020). Resilience also contributes to better psychological well-being by lowering stress levels and improving focus, enabling students to fully engage with academic tasks (Anthony et al., 2020). Enhancing resilience can thus improve both performance and student welfare.

Conclusion

This study aimed to examine the effects of school climate, student adaptability, and self-efficacy on student resilience and performance, as well as the mediating role of resilience in these relationships. The results indicate that a positive school climate, high adaptability, and strong self-efficacy significantly enhance both student resilience and academic performance. A supportive environment fosters emotional security, adaptability enables constructive responses to academic demands, and self-efficacy drives motivation and proactive learning behaviors. Resilience was found to mediate the influence of all three predictors on performance, functioning as a psychological buffer against challenges. These findings highlight the need for educational institutions to implement strategies that cultivate a positive climate, develop adaptive skills, and strengthen students' belief in their abilities. Future interventions should focus on teacher training, student support programs, and confidence-building initiatives to empower students as resilient and high-performing learners.

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